

point where the cell attempts to reduce the power of any handset attempting cell completion or establishment, resulting in severely curtailed range capabilities, for the establishment of calls, and sudden cut-offs of existing calls due to the power reductions undertaken, resulting in an out-of-range effect to a handset that was previously well within range.

Admittedly, we are early in our testing process and this equipment is in a very prototypical stage. Potentially, situations such as this and any others that will undoubtedly occur, can and will be worked out with further development work and time; after all, that is exactly what this experimental license process was established to enable.

What is particularly disturbing here is that we have an effect that is affected by many of the variables that are about to be fixed by a rulemaking process. While it may be argued that setting any one of the variables is harmless enough, since at least a finite set of parameters will exist for further development of technology, clearly an attempt to set all of the technical variables open for comment in the NPRM may have exactly the opposite effect.

For example, elsewhere in Cablevision's comments there is a discussion of spectrum allocation size and the effect incumbent users have on the viability of certain allocation sizes as well as the viability of the number of licensees in the same given area. As is shown elsewhere in Cablevision's comments, these are clearly related variables in terms of the viability of any potential license grant and the efficiency of the proposed PCS service in a given geographical area. The proposals offered in that section assume that the technology proposed has certain properties and operates in the manner anticipated. It also happens to be tailored around the non-interference to existing user base standard, as has been most of the rigorous testing by others to date.

This section deals with the potential that, due to our preliminary findings, the spread spectrum technology that is one of the templates for this proposed rulemaking may either not operate in the manner anticipated herein, in traffic capacity terms at least, thereby potentially requiring either "clear" spectrum, or may require much greater bandwidth allocation, in order to reach the potentials intuitively anticipated and used as the basis for this rulemaking process.

EXHIBIT 2

CABLEVISION SYSTEMS CORP.

PCN RESEARCH

OFS STUDY

15 MHz CHANNELS

1.9 GHz - 50 MILES OF HICKSVILLE, NEW YORK

PATH	LICENSEE	AREA	POWER	GAIN	Tx/Rx	ANT. HGHT. (FEET)	PATH LENGTH (MILES)	ENTITY GOVT=1	MOD. DIGITAL=1	LICENSEE #1		LICENSEE #2		LICENSEE #3		UNLICENSED FREQUENCIES
										1865	1945	1865	1945	1880	1960	
14	NASSAU COUNTY POLICE	LI	23	31.2	1975	210	4.6	1	2					1975		1975
14	NASSAU COUNTY POLICE	LI	24	31.2	1895	90		1	2				1895			1895
0	SUFFOLK COUNTY WATER AUTHORITY	LI	27	31.2	1955	150	0.5	1	2			1955				
0	SUFFOLK COUNTY WATER AUTHORITY	LI	27	31.2	1875	30		1	2		1875					
21	SUFFOLK COUNTY POLICE 3RD PRECINCT	LI	24	31.3	1935	215	4.069	1	2		1935					
21	SUFFOLK COUNTY POLICE HAUPPAUGE	LI	24	31.2	1855	80		1	2	1855						
22	SUFFOLK COUNTY POLICE HAUPPAUGE	LI	35	31.3	1975	120	11.1	1	2					1975		1975
22	SUFFOLK COUNTY POLICE MT MISERY	LI	35	31.2	1895	200		1	2				1895			1895
23	SUFFOLK COUNTY POLICE	LI	28	31.3	1955	175	10.2	1	2			1955				
23	SUFFOLK COUNTY POLICE	LI	28	31.2	1875	80		1	2		1875					
24	SUFFOLK COUNTY POLICE	LI	35	30.9	1855	110	6.1	1	2	1855						
24	SUFFOLK COUNTY POLICE	LI	35	30.9	1935	100		1	2		1935					
28	SUFFOLK COUNTY POLICE	LI	35	30.9	1985	150	11.5	1	2							1985
28	SUFFOLK COUNTY POLICE	LI	35	30.9	1905	146		1	2							1905
29	SUFFOLK COUNTY POLICE NOYACK	LI	35	31.5	1945	100	17	1	2		1945		1945			
29	SUFFOLK COUNTY POLICE BALD HILL	LI	35	31.5	1865	60		1	2	1865		1865				

NOTE: SHADED AREAS ILLUSTRATE MICROWAVE PATHS WHICH OCCUPY THE SPECTRUM OF MULTIPLE PCN LICENSEES.

CABLEVISION SYSTEMS CORP.

PCN RESEARCH
OFS STUDY

15 MHz CHANNELS

1.9 GHz - 50 MILES OF HICKSVILLE, NEW YORK

PATH	LICENSEE	AREA	POWER	GAIN	Tx/Rx	ANT.	PATH	ENTITY	MOD.	LICENSEE #1		LICENSEE #2		LICENSEE #3		UNLICENSED FREQUENCIES
						HGHT.	LENGTH			GOVT=1	DIGITAL=1	1850 TO 1865	1930 TO 1945	1865 TO 1880	1945 TO 1960	
						(FEET)	(MILES)									
1	MONMOUTH COUNTY POLICE	NJ	32	31.2	1970	150	10.4	1	1						1970	
1	MONMOUTH COUNTY POLICE	NJ	32	31.2	1890	135		1	1					1890		
3	NEW JERSEY TURNPIKE AUTHORITY	NJ	39	28.7	1945	97	15.3	1	2		1945		1945			
3	NEW JERSEY TURNPIKE AUTHORITY	NJ	31	28.7	1865	172		1	2	1865		1865				
5	NEW JERSEY TURNPIKE AUTHORITY	NJ	25	0	1905	172	7.2	1	2							1905
5	NEW JERSEY TURNPIKE AUTHORITY	NJ	25	31.2	1985	116		1	2							1985
7	NEW JERSEY TURNPIKE AUTHORITY	NJ	25	31.2	1975	106	14.5	1	2						1975	1975
7	NEW JERSEY TURNPIKE AUTHORITY	NJ	25	28.7	1915	97		1	2							1915
9	NEW JERSEY TURNPIKE AUTHORITY	NJ	25	28.7	1885	97	3.2	1	2					1885		
9	NEW JERSEY TURNPIKE AUTHORITY	NJ	25	31.2	1965	32		1	2						1965	
17	NEW JERSEY TURNPIKE AUTHORITY	NJ	25	31.6	1905	146	19.9	1	2							1905
17	NEW JERSEY TURNPIKE AUTHORITY	NJ	25	31.1	1985	116		1	2							1985

NOTE: SHADED AREAS ILLUSTRATE MICROWAVE PATHS WHICH OCCUPY THE SPECTRUM OF MULTIPLE PCN LICENSEES.

CABLEVISION SYSTEMS CORP.

*PCN RESEARCH
OFS STUDY*

15 MHz CHANNELS

1.9 GHz - 50 MILES OF HICKSVILLE, NEW YORK

PATH	LICENSEE	AREA	POWER	GAIN	Tx/Rx	ANT. HGHT. (FEET)	PATH LENGTH (MILES)	ENTITY	MOD.	LICENSEE #1		LICENSEE #2		LICENSEE #3		UNLICENSED FREQUENCIES
										1865	1945	1865	1945	1880	1960	
11	PORT AUTHORITY - NY & NJ	NEWARK	32	31.2	1945	60	8.3	1	1		1945		1945			
11	PORT AUTHORITY - NY & NJ	WTC	32	31.2	1865	1380		1	1	1865		1865				
10	PORT AUTHORITY - NY & NJ	KENNEDY	32	31.2	1955	50	11.3	1	1				1955			
10	PORT AUTHORITY - NY & NJ	WTC	32	31.2	1875	1380		1	1			1875				
18	PORT AUTHORITY - NY & NJ	WTC	32	31.2	1855	1380	7.9	1	1	1855						
18	PORT AUTHORITY - NY & NJ	LGA	32	31.2	1935	70		1	1		1935					
19	NEW YORK CITY HEALTH AND HOSPITAL	NY	20	31.5	1855	180	4.1	1	1	1855						
19	NEW YORK CITY HEALTH AND HOSPITAL	NY	20	31.5	1935	221		1	1		1935					

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CABLEVISION SYSTEMS CORP.

PCN RESEARCH
OFS STUDY

15 MHz CHANNELS

1.9 GHz - 50 MILES OF HICKSVILLE, NEW YORK

PATH	LICENSEE	AREA	POWER	GAIN	Tx/Rx	ANT.	PATH	ENTITY	MOD.	LICENSEE #1		LICENSEE #2		LICENSEE #3		UNLICENSED FREQUENCIES
						HTGT.	LENGTH			1865	1930	1865	1945	1880	1960	
						(FEET)	(MILES)	GOVT-1	DIGITAL-1	1865	1945	1880	1960	1895	1975	
37	CONNECTICUT LIGHT AND POWER	DEVO CT	37	31.3	1975	345	18.3	2	2						1975	1975
37		NORWALK HRBR CT	37	31.3	1895	245		2	2					1895		1895
40	ALGONQUIN GAS TRANSMISSION	DANBUR CT	37	33.2	1885	130	41.7	2	2						1885	
40		MAHWAH NJ	37	31.2	1945	335		2	2	1945		1945				
41	CONNECTICUT LIGHT AND POWER	PROSPE CT	38	31.3	1865	150	19.6	2	2	1865		1865				
41		DEVON CT	37	31.3	1945	345		2	2		1945		1945			
42	ALGONQUIN GAS TRANSMISSION	WEST PEA CT	37	28.7	1930	65	36.8	2	2		1930					1930
42		DANBURY CT	37	28.7	1985	145		2	2							1985
30	LONG ISLAND LIGHTING	LI	35	33.2	1865	250	19	2	2	1865		1865				
30	LONG ISLAND LIGHTING	LI	35	33.2	1945	146		2	2		1945		1945			
	LONG ISLAND LIGHTING	LI	35	28.7	1965	84	0.9								1965	
	LONG ISLAND LIGHTING	LI	35	28.7	1885	250								1885		

NOTE: SHADED AREAS ILLUSTRATE MICROWAVE PATHS WHICH OCCUPY THE SPECTRUM OF MULTIPLE PCN LICENSEES.

CABLEVISION SYSTEMS CORP.

PCN RESEARCH

OFS STUDY

15 MHz CHANNELS

1.9 GHz - 50 MILES OF HICKSVILLE, NEW YORK

PATH	LICENSEE	AREA	POWER	GAIN Tx/Rx	ANT. HGHT. (FEET)	PATH LENGTH (MILES)	ENTITY	MOD.	LICENSEE #1		LICENSEE #2		LICENSEE #3		UNLICENSED FREQUENCIES
									1865 TO	1930 TO	1865 TO	1945 TO	1880 TO	1960 TO	
2	MCGRAW HILL	NJ	30	31.3	1900	290	17.7	2	1	1900					1900
2		NJ	30	31.3	1980	100		2	1						1980
4	PUBLIC SERVICE ELECTRIC AND GAS	NJ	30	31.3	1890	130	21.2	2	1				1890		
4		NJ	30	31.3	1970	120		2	1				1970		
6	TRANSCONTINENTAL GAS PIPELINE	NJ	39	33.2	1945	180	28.1	2	2		1945		1945		
6		NJ	39	33.2	1855	240		2	2	1855					
15	AAT COMMUNICATIONS CORPORATION	NY	30	33.6	1975	557	32.4	2	1					1975	1975
15		NJ	30	34.7	1925	192		2	1						1925
16	MCGRAW HILL	NY	30	31.3	1880	689	27	2	1		1880		1880		
16		NJ	30	31.3	1960	100		2	1			1960		1960	

NOTE: SHADED AREAS ILLUSTRATE MICROWAVE PATHS WHICH OCCUPY THE SPECTRUM OF MULTIPLE PCN LICENSEES.

CABLEVISION SYSTEMS CORP.

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OFS STUDY*

15 MHz CHANNELS

1.9 GHz - 50 MILES OF HICKSVILLE, NEW YORK

PATH	LICENSEE	AREA	POWER	GAIN	Tx/Rx	ANT. HGHT. (FEET)	PATH LENGTH (MILES)	ENTITY	MOD.	LICENSEE #1		LICENSEE #2		LICENSEE #3		UNLICENSED FREQUENCIES
										1865	1945	1865	1945	1880	1960	
20	PUBLIC SERVICE ELECTRIC AND GAS	NJ	29	31.3	1880	130	18.5	2	1			1880		1880		
20		NJ	29	31.3	1960	145		2	1				1960		1960	
25	PUBLIC SERVICE ELECTRIC AND GAS	NJ	20	31.3	1860	320	15.3	2	1	1860						
25		NJ	20	31.3	1940	105		2	1		1940					
26	CITIBANK EXCHANGE ST	NJ	28	34	1975	250	14.9	2	1						1975	1975
26		NY	28	32.1	1895	728		2	1				1895			1895
27	CITIBANK	NJ	20	31.2	1950	200	9.6	2	1					1950		
27		NJ	20	31.2	1870	80		2	1			1870				
32	ALGONQUIN GAS TRANSMISSION	NJ	37	31.2	1935	335	37.8	2	2		1935					
32		NJ	37	31.2	1860	120		2	2	1860						

NOTE: SHADED AREAS ILLUSTRATE MICROWAVE PATHS WHICH OCCUPY THE SPECTRUM OF MULTIPLE PCN LICENSEES.

CABLEVISION SYSTEMS CORP.

PCN RESEARCH
OFS STUDY

15 MHz CHANNELS

1.9 GHz - 50 MILES OF HICKSVILLE, NEW YORK

PATH	LICENSEE	AREA	POWER	GAIN	Tx/Rx	ANT. HGHT. (FEET)	PATH LENGTH (MILES)	ENTITY	MOD.	LICENSEE #1		LICENSEE #2		LICENSEE #3		UNLICENSED FREQUENCIES
										1865	1935	1865	1945	1880	1960	
33	ORANGE AND ROCKLAND UTILITIES-SPRING WC		36	28.7	1935	127	6	2	2		1935					
33	MAHWAH NJ		36	28.7	1855	95		2	2	1855						
34	ORANGE AND ROCKLAND UTILITIES RAMA WC		36	28.7	1955	55	3	2	2			1955				
34	MAHWAH NJ		36	28.7	1875	55		2	2		1875					
39	ORANGE AND RCKLAND UTILITIES MONRO WC		36	28.7	1975	112	12.2	2	2					1975		1975
39	MAHWAH NJ		36	28.7	1895	97		2	2				1895		1895	
8	CONSOLIDATED EDISON - NEW YORK	NY	27	29.4	1950	291	6	2	1			1950				
8		NY	27	28.8	1870	92		2	1		1870					
12	CONSOLIDATED EDISON - NY IRVING PLAC NY		21	31.3	1905	276	3.4	2	1							1905
12	HANSON PLACE NY		21	31.9	1985	291		2	1							1985
13	CONSOLIDATED EDISON - NY IRVING PLACE NY		24	31.2	1980	276	8.3	2	1							1980
13	QUEENS BLVD NY NY		24	28.7	1890	246		2	1				1890			
31	CONSOLIDATED EDISON - NY	NY	30	31.8	1940	988	21.4	2	1		1940					
31		NY	30	31.8	1860	60		2	1	1860						

NOTE: SHADED AREAS ILLUSTRATE MICROWACE PATHS WHICH OCCUPY THE SPECTRUM OF MULTIPLE PCN LICENSEES.

CABLEVISION SYSTEMS CORP.

**PCN RESEARCH
OFS STUDY**

15 MHz CHANNELS

1.9 GHz - 50 MILES OF HICKSVILLE, NEW YORK

PATH	LICENSEE	AREA	POWER	GAIN Tx/Rx	ANT. HGHT. (FEET)	PATH LENGTH (MILES)	ENTITY	MOD.	LICENSEE #1		LICENSEE #2		LICENSEE #3		UNLICENSED FREQUENCIES
									1865	1945	1865	1945	1880	1960	
35	SPRING VALLEY WC	36	28.7	1975	127	6.6	2	2					1975	1975	
35	ORANGE AND ROCKLAND UTILITIES THIEL WC	36	28.7	1895	25		2	2					1895	1895	
36	THIELS WC	36	28.7	1875	25	4.2	2	2		1875					
36	ORANGE AND ROCKLAND UTILITIES-HAVERS WC	36	28.7	1955	214		2	2			1955				
38	THIELS WC	24	31.4	1855	57	5.3	2	2	1855						
38	ORANGE AND ROCKLAND UTILITIES LOVET WC	30	31.4	1935	240		2	2		1935					

NOTE: SHADED AREAS ILLUSTRATE MICROWAVE PATHS WHICH OCCUPY THE SPECTRUM OF MULTIPLE PCN LICENSEES.

CABLEVISION SYSTEMS CORPORATION

PCN RESEARCH

OFS STUDY

20 MHz CHANNELS

1.9 GHz - 50 MILES OF HICKSVILLE, NEW YORK

PATH	LICENSEE	AREA	POWER	GAIN	Tx/Rx	ANT. HGHT. (FEET)	PATH LENGTH (MILES)	ENTITY	MOD.	LICENSEE #1		LICENSEE #2		LICENSEE #3		UNLICENSED FREQUENCIES
										1850 TO 1870	1930 TO 1950	1870 TO 1890	1950 TO 1970	1890 TO 1910	1970 TO 1990	
14	NASSAU COUNTY POLICE	LI	23	31.2	1975	90	4.6	1	2						1975	
14	NASSAU COUNTY POLICE	LI	24	31.2	1895			1	2					1895		
0	SUFFOLK COUNTY WATER AUTHORITY	LI	27	31.2	1955	150	0.5	1	2				1955			
0		LI	27	31.2	1875	30		1	2		1875					
21	3RD PRECINCT NY	LI	24	31.3	1935	215	4.069	1	2		1935					
21	SUFFOLK COUNTY POLICE	HAUPPAUGE	LI	24	31.2	1855		1	2	1855						
22	SUFFOLK COUNTY POLICE	HAUPPAUGE	LI	35	31.3	1975	120	11.1	1	2					1975	
22		MT MISERY	LI	35	31.2	1895	200		1	2				1895		
23	SUFFOLK COUNTY POLICE	LI	28	31.3	1955	175	10.2	1	2				1955			
23		LI	28	31.2	1875	80		1	2		1875					
24	SUFFOLK COUNTY POLICE	LI	35	30.9	1855	110	6.1	1	2	1855						
24		LI	35	30.9	1935	100		1	2		1935					
28	SUFFOLK COUNTY POLICE	LI	35	30.9	1985	150	11.5	1	2						1985	
28		LI	35	30.9	1905	146		1	2				1905			
29	SUFFOLK COUNTY POLICE	NOYACK	LI	35	31.5	1945	100	17	1	2		1945				
29	SUFFOLK COUNTY POLICE	BALD HILL	LI	35	31.5	1865	60		1	2	1865					

NOTE: SHADED AREAS ILLUSTRATE MICROWAVE PATHS WHICH OCCUPY THE SPECTRUM OF MULTIPLE PCN LICENSEES.

CABLEVISION SYSTEMS CORPORATION

PCN RESEARCH
OFS STUDY

20 MHz CHANNELS

1.9 GHz - 50 MILES OF HICKSVILLE, NEW YORK

PATH	LICENSEE	AREA	POWER	GAIN	Tx/Rx	ANT. HGHT. (FEET)	PATH LENGTH (MILES)	ENTITY	MOD.	LICENSEE #1		LICENSEE #2		LICENSEE #3		UNLICENSED FREQUENCIES
										TO	TO	TO	TO	TO	TO	

1	MONMOUTH COUNTY POLICE	NJ	32	31.2	1970	150	10.4	1	1			1970	1970		
1		NJ	32	31.2	1890	135		1	1		1890		1890		
3	NEW JERSEY TURNPIKE AUTHORITY	NJ	39	28.7	1945	97	15.3	1	2		1945				
3		NJ	31	28.7	1865	172		1	2	1865					
5	NEW JERSEY TURNPIKE AUTHORITY	NJ	25	0	1905	172	7.2	1	2				1905		
5		NJ	25	31.2	1985	116		1	2					1985	
7	NEW JERSEY TURNPIKE AUTHORITY	NJ	25	31.2	1975	106	14.5	1	2					1975	
7		NJ	25	28.7	1915	97		1	2						1915
9	NEW JERSEY TURNPIKE AUTHORITY	NEWAR NJ	25	28.7	1885	97	3.2	1	2		1885				
9		BAYONNE NJ	25	31.2	1965	32		1	2			1965			
17	NEW JERSEY TURNPIKE AUTHORITY	NJ	25	31.6	1905	146	19.9	1	2				1905		
17		NJ	25	31.1	1985	116		1	2					1985	

NOTE: SHADED AREAS ILLUSTRATE MICROWAVE PATHS WHICH OCCUPY THE SPECTRUM OF MULTIPLE PCN LICENSEES.

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PATH	LICENSEE	AREA	POWER	GAIN	Tx/Rx	ANT.	PATH	ENTITY	MOD.	LICENSEE #1		LICENSEE #2		LICENSEE #3		UNLICENSED FREQUENCIES
						HGHT.	LENGTH			TO	TO	TO	TO	TO	TO	
						(FEET)	(MILES)			GOVT =	DIGITAL =					
11	PORT AUTHORITY - NY & NJ	NEWARK	NJ	32	31.2	1945	60	8.3	1	1		1945				
11	PORT AUTHORITY - NY & NJ	WTC	NY	32	31.2	1865	1380		1	1	1865					
10	PORT AUTHORITY - NY & NJ	KENNEDY	NY	32	31.2	1955	50	11.3	1	1			1955			
10	PORT AUTHORITY - NY & NJ	WTC	NY	32	31.2	1875	1380		1	1		1875				
18		WTC	NY	32	31.2	1855	1380	7.9	1	1	1855					
18	PORT AUTHORITY - NY & NJ	LGA	NY	32	31.2	1935	70		1	1		1935				
19	NEW YORK CITY HEALTH AND HOSPITAL		NY	20	31.5	1855	180	4.1	1	1	1855					
19			NY	20	31.5	1935	221		1	1		1935				

NOTE: SHADED AREAS ILLUSTRATE MICROWAVE PATHS WHICH OCCUPY THE SPECTRUM OF MULTIPLE PCN LICENSEES.

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20 MHz CHANNELS

1.9 GHz - 50 MILES OF HICKSVILLE, NEW YORK

PATH	LICENSEE	AREA	POWER	GAIN	Tx/Rx	ANT. HGHT. (FEET)	PATH LENGTH (MILES)	ENTITY	MOD.	LICENSEE #1		LICENSEE #2		LICENSEE #3		UNLICENSED FREQUENCIES
										1850 TO 1870	1930 TO 1950	1870 TO 1890	1950 TO 1970	1890 TO 1910	1970 TO 1990	
37	CONNECTICUT LIGHT AND POWER	DEVON	CT	37	31.3	1975	345	18.3	2	2				1975		
37		NORWALK HRBR	CT	37	31.3	1895	245		2	2				1895		
40	ALGONQUIN GAS TRANSMISSION	DANBURY	CT	37	33.2	1885	130	41.7	2	2		1885				
40		MAHWAH	NJ	37	31.2	1945	335		2	2	1945					
41	CONNECTICUT LIGHT AND POWER	PROSPECT	CT	38	31.3	1865	150	19.6	2	2	1865					
41		DEVON	CT	37	31.3	1945	345		2	2	1945					
42	ALGONQUIN GAS TRANSMISSION	WEST PEAK	CT	37	28.7	1930	65	36.8	2	2		1930				1930
42		DANBURY	CT	37	28.7	1985	145		2	2		1985				
30	LONG ISLAND LIGHTING		LI	35	33.2	1945	250	19	2	2		1945				
30	LONG ISLAND LIGHTING		LI	35	33.2	1865	146		2	2	1865					
	LONG ISLAND LIGHTING		LI	35	28.7	1965	84	0.9					1965			
	LONG ISLAND LIGHTING		LI	35	28.7	1885	250					1885				

NOTE: SHADED AREAS ILLUSTRATE MICROWAVE PATHS WHICH OCCUPY THE SPECTRUM OF MULTIPLE PCN LICENSEES.

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PATH	LICENSEE	AREA	POWER	GAIN	Tx/Rx	ANT. HGHT. (FEET)	PATH LENGTH (MILES)	ENTITY	MOD.	LICENSEE #1		LICENSEE #2		LICENSEE #3		UNLICENSED FREQUENCIES
										1850 TO 1870	1930 TO 1950	1870 TO 1890	1950 TO 1970	1890 TO 1910	1970 TO 1990	
2	MCGRAW HILL	NJ	30	31.3	1900	290	17.7	2	1					1900		
2	MCGRAW HILL	NJ	30	31.3	1980	100		2	1						1980	
4	PUBLIC SERVICE ELECTRIC AND GAS	NJ	30	31.3	1890	130	21.2	2	1		1890		1890			
4	PUBLIC SERVICE ELECTRIC AND GAS	NJ	30	31.3	1970	120		2	1			1970		1970		
6	TRANSCONTINENTAL GAS PIPELINE	NJ	39	33.2	1855	180	28.1	2	2	1855						
6	TRANSCONTINENTAL GAS PIPELINE	NJ	39	33.2	1945	240		2	2		1945					
15	AAT COMMUNICATIONS CORPORATION	NJ	30	34.7	1925	557	32.4	2	1							1925
15	AAT COMMUNICATIONS CORPORATION	NY	30	33.6	1975	192		2	1					1975		
16	MCGRAW HILL	NY	30	31.3	1880	689	27	2	1		1880					
16	MCGRAW HILL	NJ	30	31.3	1960	100		2	1			1960				

NOTE: SHADED AREAS ILLUSTRATE MICROWAVE PATHS WHICH OCCUPY THE SPECTRUM OF MULTIPLE PCN LICENSEES.

CABLEVISION SYSTEMS CORPORATION

PCN RESEARCH
OFS STUDY

20 MHz CHANNELS

1.9 GHz - 50 MILES OF HICKSVILLE, NEW YORK

PATH	LICENSEE	AREA	POWER	GAIN	Tx/Rx	ANT. HGHT. (FEET)	PATH LENGTH (MILES)	ENTITY	MOD.	LICENSEE #1		LICENSEE #2		LICENSEE #3		UNLICENSED FREQUENCIES
										1870	1950	1870	1950	1890	1970	
20	PUBLIC SERVICE ELECTRIC AND GAS	NJ	29	31.3	1880	130	18.5	2	1			1880				
20		NJ	29	31.3	1960	145		2	1				1960			
25	PUBLIC SERVICE ELECTRIC AND GAS	NJ	20	31.3	1860	320	15.3	2	1	1860						
25		NJ	20	31.3	1940	105		2	1		1940					
26	CITIBANK EXCHANGE ST	NJ	28	34	1975	250	14.9	2	1						1975	
26		NY	28	32.1	1895	728		2	1				1895			
27	CITIBANK	NJ	20	31.2	1950	200	9.6	2	1		1950		1950			
27		NJ	20	31.2	1870	80		2	1	1870		1870				
32	ALGONQUIN GAS TRANSMISSION	NJ	37	31.2	1935	335	37.8	2	2		1935					
32		NJ	37	31.2	1860	120		2	2	1860						

NOTE: SHADED AREAS ILLUSTRATE MICROWAVE PATHS WHICH OCCUPY THE SPECTRUM OF MULTIPLE PCN LICENSEES.

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PATH	LICENSEE	AREA	POWER	GAIN Tx/Rx	ANT. PATH		ENTTY	MOD.	LICENSEE #1			LICENSEE #2			LICENSEE #3			UNLICENSED FREQUENCIES
					HGHT. (FEET)	LENGTH (MILES)			1870 TO 1870	1930 TO 1930	1870 TO 1870	1950 TO 1950	1890 TO 1890	1950 TO 1950	1890 TO 1890	1970 TO 1970		
33 33	ORANGE AND ROCKLAND UTILITIES-SPRING VL WC MAHWAH NJ		36	28.7	1935	127	6	2	2		1935							
			36	28.7	1855	95		2	2	1855								
34 34	ORANGE AND ROCKLAND UTILITIES RAMAP WC MAHWAH NJ		36	28.7	1955	55	3	2	2			1955						
			36	28.7	1875	55		2	2			1875						
39 39	ORANGE AND ROCKLAND UTILITIES MONROE WC MAHWAH NJ		36	28.7	1975	112	12.2	2	2					1975				
			36	28.7	1895	97		2	2				1895					
8 8	CONSOLIDATED EDISON - NEW YORK	NY	27	29.4	1950	291	6	2	1		1950		1950					
		NY	27	28.8	1870	92		2	1	1870		1870						
12 12	CONSOLIDATED EDISON - NY IRVING PLACE NY HANSON PLACE NY		21	31.3	1905	276	3.4	2	1					1905				
			21	31.9	1985	291		2	1						1985			
13 13	CONSOLIDATED EDISON - NY IRVING PLACE NY QUEENS BLVD NY	NY	24	31.2	1980	276	8.3	2	1						1980			
		NY	24	28.7	1890	246		2	1			1890		1890				
31 31	CONSOLIDATED EDISON - NY	NY	30	31.8	1940	988	21.4	2	1		1940							
		NY	30	31.8	1860	60		2	1	1860								

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PATH	LICENSEE	AREA	POWER	GAIN	Tx/Rx	ANT.	PATH	ENTITY	MOD.	LICENSEE #1		LICENSEE #2		LICENSEE #3		UNLICENSED FREQUENCIES
						HGHT. (FEET)	LENGTH (MILES)			GOVT =	DIGITAL =	1850 TO 1870	1930 TO 1950	1870 TO 1890	1950 TO 1970	
35	SPRING VALLEY	WC	36	28.7	1975	127	6.6	2	2						1975	
35	ORANGE AND ROCKLAND UTILITIES	THIELS WC	36	28.7	1895	25		2	2					1895		
36	THIELS	WC	36	28.7	1875	25	4.2	2	2		1875					
36	ORANGE AND ROCKLAND UTILITIES-HAVERSTR	WC	36	28.7	1955	214		2	2			1955				
38	THIELS	WC	24	31.4	1855	57	5.3	2	2	1855						
38	ORANGE AND ROCKLAND UTILITIES	LOVETT WC	30	31.4	1935	240		2	2		1935					

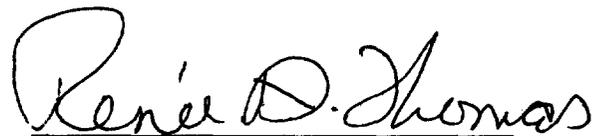
NOTE: SHADED AREAS ILLUSTRATE MICROWAVE PATHS WHICH OCCUPY THE SPECTRUM OF MULTIPLE PCN LICENSEES.

CERTIFICATE OF SERVICE

I, Renee D. Thomas, hereby certify that a copy of the foregoing pleading has been sent by United States mail, first class and postage prepaid, to the following on this 9th day of November, 1992:

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